



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RB T102137-1
Job Sheet 183795



Part No: RB T102137-111

Job Qty: 1 ea

Part Name: Lifting Tool



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/26/18

Job Tracking No:

Due Date: 10/17/18

Created By: Patrick Lussler

Type: Stock

Description:

Note: RB T102137-11 REV.A IPP REV;A 18.05.14 NEW ISSUE DD VERF:JFS

Ship Via:



*Re-work outsource
Packaging &
QC 6
Small Fab
QC5*

Op No	Operation	Qty
100	Purchasing	1 pcs
110	Packaging	1 pcs
120	QC	1 pcs
121	Small Fab	1 pcs
122	QC	1 pcs
123	Rework	1 pc
130	Packaging	1 pcs
140	QC21-SA	1 Ea

Workcenter/Supplier	Lead Time	Sign-off
Purchasing		
Packaging2		
QC6		
Small Fab-6		
QC5		
Rework Out		
Packaging3		
QC21		

Part Op 100 - ISSUE P/O:

SUPPLIER: METEC MANUFACTURE, RB T102137-111 AS PER DWG C

Descriptions: OF C IS REQUIRED

121 - 1-Load test as per DWG sheet 6. 2-Fill out first article weight test form DWG RB T102137-111 sheet 6.

122 - Ensure first article weight test form is filled out and attached to work order.

123- Outsource - PO042318.

124- Packaging 2018

125- QC

38 Job BOM

IAN 30 2018

IPC=8pcs.

Part / Item	Component Name	Quantity	Operation	Container
RB T102137-111P	Lifting Tool	1 pcs (1 ea)	100-Purchasing	
RB T102137-107-105	Strap	1 pcs (1 ea)	121-Small Fab	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RB T102137-111P	1	0	0
121-Small Fab	RB T102137-107-105	1	0	0

Part Specifications

Specifications could not be found.

Plex 1/17/19 8:07 AM dart.lacelle.linda



Dart Aerospace Ltd.
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Tel (613) 632-5200
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RB T102137-111
Job Sheet 183795



Part No: RB T102137-111

Job Qty: 1 ea

Part Name: Lifting Tool



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/26/18

Job Tracking No:

Due Date: 10/17/18

Created By: Patrick Lussier

Type: Stock

Description:

Note: RB T102137-11 REV.A IPP REV.A 18.05.14 NEW ISSUE DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	1 pcs		10/17/18	0.00	0.00	Purchasing		JAN 09 2019
110	Packaging	1 pcs		10/17/18	0.00	0.00	Packaging2		JAN 09 2019
120	QC	1 pcs		10/17/18	0.00	0.00	QC6		38
121	Small Fab	1 pcs		10/17/18	0.00	1.00	Small Fab-6		ML 9-89
122	QC	1 pcs		10/17/18	0.00	0.00	QC5		
130	Packaging	1 pcs		10/17/18	0.00	0.00	Packaging3		
140	QC21-SA	1 Ea		10/17/18	0.00	0.00	QC21		

Part Op 100 - ISSUE P/O: 041159 SUPPLIER: METEC MANUFACTURE, RB T102137-111 AS PER DWG C
Descriptions: OF C IS REQUIRED

121 - 1-Load test as per DWG sheet 6. 2-Fill out first article weight test form DWG RB T102137-111 sheet 6.

122 - Ensure first article weight test form is filled out and attached to work order.

APT 210-2018 x 1 In h

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RB T102137-111P	Lifting Tool	1 pcs (1 ea)	100-Purchasing	S143266

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RB T102137-111P	1	0	0

123 Rework

Part Specifications

Specifications could not be found.



Container No: S143268



Part: RB T102137-111

Job No: 183795

Serial No/Batch: S143268

Revision: A

Inspector:

Exp Date:

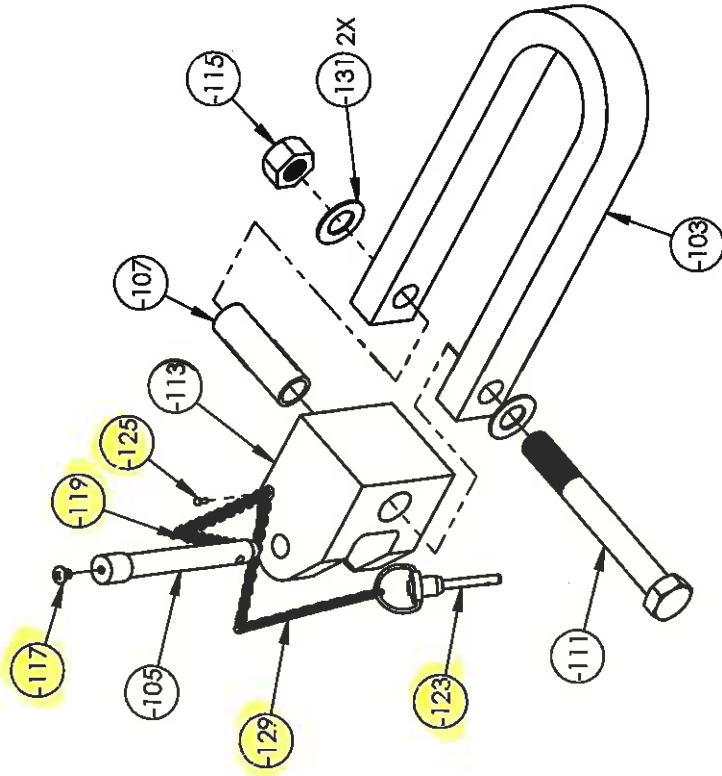
Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Plex 9/26/18 2:42 PM dart.Lussier.Patrick

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REV		ECR	REVISIONS	
REV		ECR	DESCRIPTION	DATE
A	14-0208		DELETED NOTE 2 SHEET ONE -103 CH'D ENGRAVE NOTE ONE SIDE TO READ ENGRAVE T/N, S/N, "MADE IN USA", THE OTHER SIDE TO READ ENGRAVE "CAPACITY 12000LBS" PROOF LOAD 24000LBS TO PH.	11/4/2014
				JAG



Need a sequence
to assemble
with part



NOTES
1. TORQUE -115 NUT TO 30-55 FT.LBS.

ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
		-103	1	STRAP	4140	1-1/4 X 4-1/8 X 3-5/8 (SAME AS RB T1021 40-103)	2
		-105	1	PIN	4140	Ø5/8 X 4-3/4	3
		-107	1	SLEEVE	4130	Ø7/8 X 2-5/8 (SAME AS RB T1021 40-107)	4
	B/O	-111	1	HEX HEAD CAP SCREW	Gr. 8 CAD PLATED	5/8-18 UNF X 5 (NAS6610-64)	1
		-113	1	CLEVIS	4140	2-1/2 X 3 X 3-5/8	5
	B/O	-115	1	FLANGE NUT	CAD PLATED STEEL	5/8-18 UNF (NAS1291-10)	1
	B/O	-117	1	PHILLIPS MACH. SCREW	PLATED STEEL	10-24 X 1/4 MCMASTER-CARR #90272A238	1
	B/O	-119	1	CHAIN	BRASS	1/0 SIZE X 10" LONG (NAS1455B00-10)	1
	B/O	-123	1	BALL LOCK PIN	PLATED STEEL	Ø3/16 X 1" USABLE (NAS1333S63100)	1
	B/O	-125	1	DRIVE SCREW	PLATED STEEL	Ø.100 X 1/4 (MS21318-15)	1
	B/O	-129	1	CHAIN	BRASS	1/0 SIZE X 6" LONG (NAS1455B00-6)	1
	B/O	-131	2	FLAT WASHER	CAD PLATED STEEL	Ø5/8 ID (MS2002C10)	1

DART
AEROSPACE

LIFTING TOOL

DWG NO. RB T102137-111

REV A

DRAWN BY: DUERFELDT

APPROVED

g Gilbert

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

.XXX ± .005 FRACTIONS ± 1/8

.XX ± .01 ANGLES ± 5°

.X ± .1 SPEC

1. BREAK ALL SHARP EDGES .015 X 45°

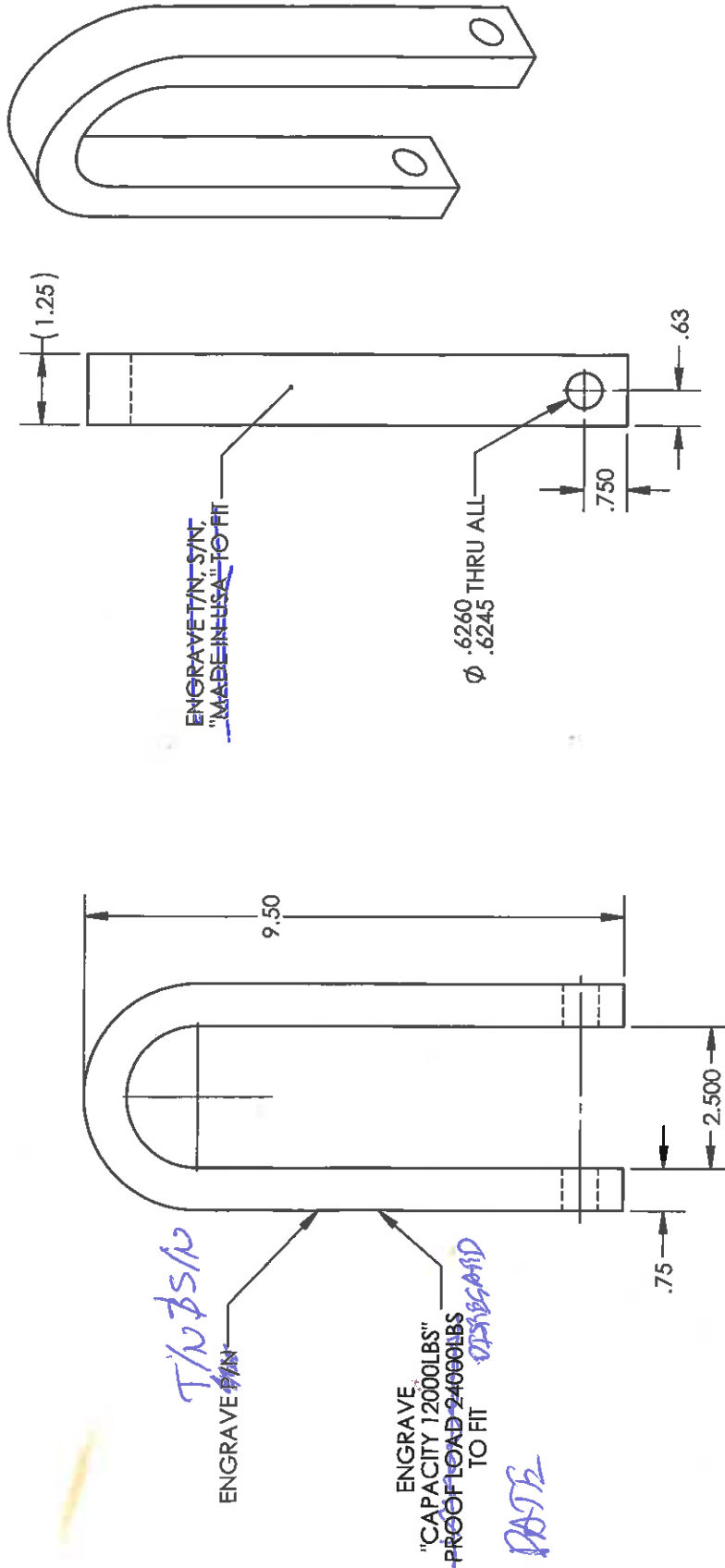
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

USED ON MODEL BELL 429

SCALE 1:4 DATE 10/1/2014 SHEET 1 OF 6

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REV		REVISIONS	
REV	ECR	DESCRIPTION	DATE
A	14-0208	-103 CHD ENGRAVE NOTE ONE SIDE TO READ ENGRAVE T/N, S/N, "MADE IN USA", THE OTHER SIDE TO READ ENGRAVE "CAPACITY 12000LBS" PROOF LOAD 24000LBS TO FIT.	11/4/2014
			JAG



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AEROSPACE

LIFTING TOOL

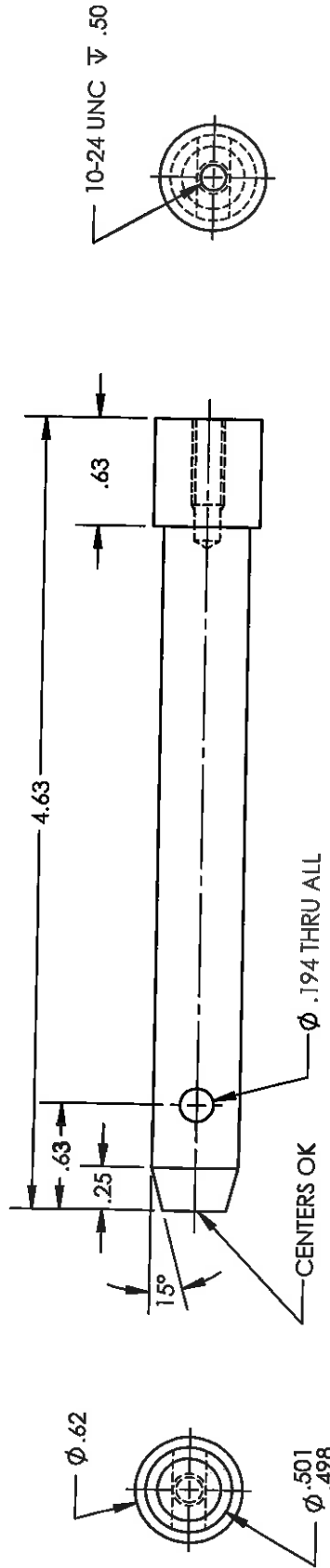
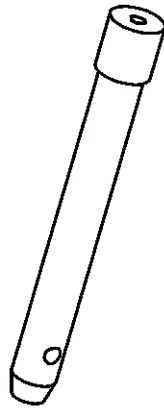
TITLE		REV	
DWG NO.			
RB T102137-111-103			A
DRAWN BY: DUERFELDT			
APPROVED: <i>q Gilbert</i>			
UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
FRACTIONS $\pm 1/8$			
ANGLES $\pm .1^\circ$			
1. BREAK ALL SHARP EDGES .015 x 45°			
2. DIMENSIONAL LIMITS APPLY AFTER PLATING			
USED ON MODEL			
BELL 429			
SCALE 1:3			
DATE 10/1/2014			
SHEET 2 OF 6			

(-103)

STRAP

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REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



DART
AEROSPACE

LIFTING TOOL

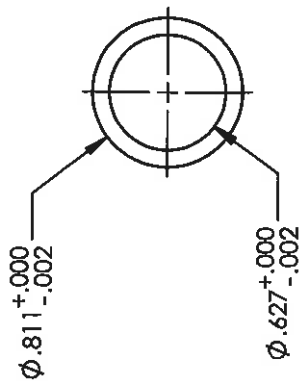
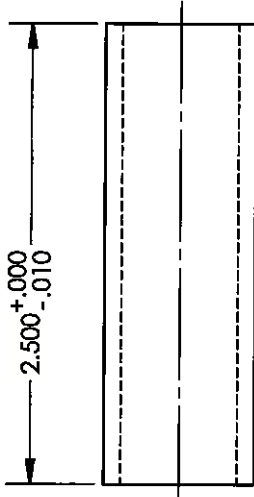
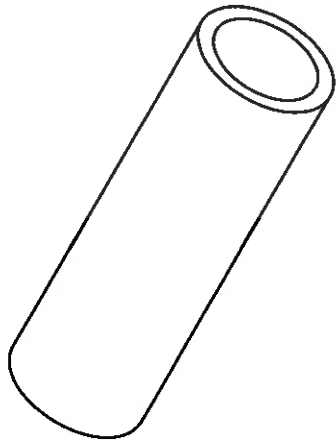
DWG NO.	RB T102137-111-105	REV	A
DRAWN BY:	DUERFELDT	APPROVED	<i>g. Githert</i>
MATL	4140	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
		FRACTIONS ± 1/8	RC 46-50
		ANGLES ± .1	CAD PLATE YELLOW
		1. BREAK ALL SHARP EDGES .016 x 45°	
		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE	1:1	DATE	10/1/2014
		USED ON MODEL	BELL 429
			SHEET 3 OF 6

-105

PIN

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REV		ECR		REVISIONS		DESCRIPTION		DATE	INITIAL	APPROVED



NOTE:
SAME PART AS T102140-107

		TITLE		LIFTING TOOL	
		DWG NO.		RB T102137-111-107	
MATERIAL		DRAWN BY:		REV	
4130		DUERFELDT		A	
UNLESS OTHERWISE SPECIFIED		APPROVED		BY: <i>g. Gilbert</i>	
DIMENSIONS ARE IN INCHES		RC 32-37			
FRACTIONS ± 1/8		FINISH		CAD PLATE YELLOW	
ANGLES ± .1°		SPEC		QC-P-416F, TYPE II, CLASS II	
1. BREAK ALL SHARP EDGES .016 x 45°		USED ON MODEL			
2. DIMENSIONAL LIMITS APPLY AFTER PLATING		BELL 429			
SCALE		1:1		DATE	
				10/1/2014	
				SHEET 4 OF 6	

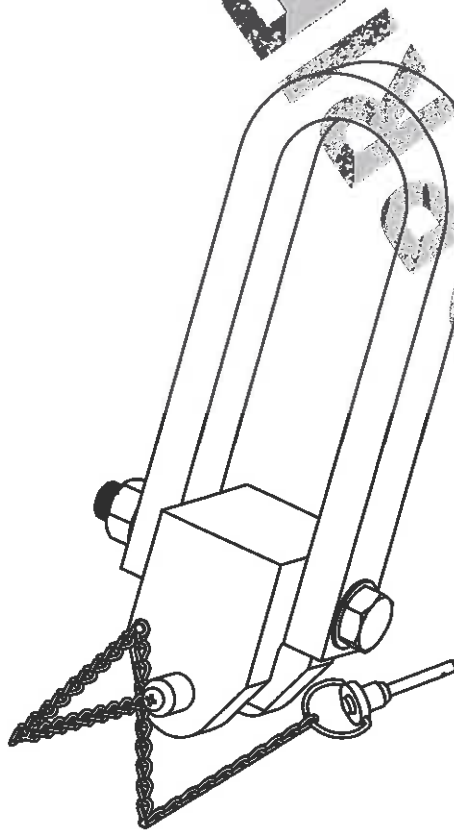
(-107)

SLEEVE

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REV		ECR	REVISIONS		DESCRIPTION	DATE	INITIAL	APPROVED

FIRST ARTICLE WEIGHT TEST



INSPECTION & TESTING PROCEDURES FOR THE RB T102137-111 LIFT TOOL. THIS ASSEMBLY SHOULD BE INSPECTED BEFORE EACH USE. REPLACE ANY ITEMS THAT ARE DAMAGED OR SUSPECTED OF DAMAGE BEFORE USING!

FIRST ARTICLE WEIGHT TEST

1. AFTER INSPECTION, PLACE LIFTING TOOL IN AN APPROPRIATE FIXTURE USE BALL LOCK PIN TO LOCK INTO FIXTURE.
2. APPLY 24,000 lbs. , FOR AT LEAST 5 MINUTES, CONTINUALLY CHECKING FOR CRACKS, DEFLECTION, OR DISTORTION.
3. REMOVE WEIGHT AND RE-INSPECT TOOL, CHECKING FOR STRESS CRACKS, BENDING, OR DISTORTIONS.

INSPECTOR _____

TESTER ALAIN PATRY

S.N. 5143268

DATE 2019/09/06



190 S. Danebo Ave., Eugene, OR. 97402
1-800-556-4166
e-mail: sales@dartaero.com
dartaerospace.com

TITLE

LIFTING TOOL

DWG NO.	REV	CUSTOMER	1 OF 1
RB T102137-111	A		
SCALE	DATE	SHEET	6 OF 6
1:2	10/1/2014		



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041159**

Supplier: AIH001-VU
Aircraft Hardware and Accessories
P.O. Box 14007
Ft Worth, TX 76617 USA
Phone: 817 680 3523
Fax: 817 838 9111

PO No: PO041159
PO Date: 9/26/18
Due Date: 10/17/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Lussier, Patrick
Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	183795	RB T102137-111P		Lifting Tool As Per Dwg RB T102137-111 Rev. A	Firmed	-	10/17/18	1 pcs	0 pcs	1 pcs	\$2,500.00/pcs	\$2,500.00

Line Item Note: 3 weeks lead time

Grand Total: \$2,500.00

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Plex 9/26/18 2:48 PM dart.Lussier.Patrick

DAS
38
9-89

AIRCRAFT HARDWARE & ACCES.
P.O. BOX 14007 FT. WORTH TX 76117
Phone: 817-680-3523 FAX- 817-416-5274
e-mail: sales@aircrafthardwareacces.com

Packing Slip

ATTN: Shipping Dept.

Date: 1/4/2019

TO: DART AEROSPACE

1270 ABERDEEN STREET

Hawkesbury ON K6A1K7

Packer # 010419A

Cust. PO #: 41159

Qty	Tool #	REF#	Description
1	RBT102137-111		LIFTING TOOL

DAC
38
9-89

ALL MATERIALS, PARTS OR COMPONENTS HAVE BEEN INSPECTED
AND COMPLY WITH THE PURCHASE ORDER REQUIREMENTS



DATE: 2019/01/15

CADMIUM PLATINGMODEL: RB T102137-111S/N : S143268

P/N	DESCRIPTION	QUANTITY
RB T102137-111-103	STRAP ✓	1 ✓
-113	CLEVIS -	1 ✓
-105	PIN ✓	1 ✓
-115	NUT -	1 ✓
-111	CAP SCREW ✓	1 ✓
-131	WASHER -	2 ✓
-107	SLEEVE ✓	1 ✓



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO042318**



Supplier: GRO002-VC Group Altech 2455 Halpern St Laurent QC H4S 1N9 Canada Phone: 514-335-3666 Fax: 514-335-3868		PO No: PO042318 PO Date: 1/18/19 Due Date: 1/24/19 Purchase Order Revision: Revision Date: Ship-To Contact: Tsimiklis, Chrisoula Phone:	
Ship To: 1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200		Via: Ground Pynt Terms: Net 60 Freight Terms: Special Comments:	

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	186994	RBW6305G01232-3G-5	Spacer -Issue P/O to Groupe Altech: P/O -Cadmium plating, QQ-P-416F TYPE II, CLASS II -Color, Yellow -Certificate of Conformity is required	Firmed	-	1/24/19	4 pcs	0 pcs	4 pcs	\$49.166666700/pcs	\$196.67
4X JAN 30 2019											
2	188772	RB T102137-107	Tool Lifting -Issue P/O to Groupe Altech: P/O -RB T102137-107-103 -RB T102137-107-105 -RB T102137-107-107 -RB T102137-107-109 -Cadmium plating, QQ-P-416F TYPE II, CLASS II -Color, Yellow -Certificate of Conformity is required	Firmed	-	1/24/19	1 pcs	0 pcs	1 pcs	\$49.166666700/pcs	\$49.17
1X JAN 30 2019 (1X includes 8pcs)											



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO042318



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	183795	RB T102137-111	Lifting Tool -Issue P/O to Groupe Altech: P/O -Cadmium plating, QQ-P416F TYPE II, CLASS II -Color: Yellow -Certificate of Conformity is required	Firmed	-	1/24/19	1 pcs	0 pcs	1 pcs	\$49.166666700/pcs	\$49.17

1x JAN 30 2019

(1x includes 8 pcs)

Grand Total: \$295.00

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

DAS
36
9-80



Certificat de Conformité / Certificate of Compliance

(016127-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

016127 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By		Transport / No de Compta Courier / Acc. No.		Bon de commande Client Customer Purchase Order No.			
29-Jan-2019		Aman				042318			
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)		CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap	À venir / Back Order
1	RBW6305G01232-3G-5 Rev. #186994	RBW6305G01232-3G-5 01-CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-P-416F TYPE 2 CLASS 2		CADMIUM CH	4	4	0	0	0
2	RBT102137-107-103 Rev.	RBT102137-107-103 01-CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-P-416F TYPE 2 CLASS 2		CADMIUM ② CH	1	1	0	0	0
3	RBT102137-107-105 Rev.	RBT102137-107-105 01-CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-P-416F TYPE 2 CLASS 2		CADMIUM ② CH	1	1	0	0	0
4	RBT102137-107-107 Rev.	RBT102137-107-107 01-CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-P-416F TYPE 2 CLASS 2		CADMIUM ② CH	1	1	0	0	0
5	RBT102137-107-109 Rev.	RBT102137-107-109 01-CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-P-416F TYPE 2 CLASS 2		CADMIUM ② CH	1	1	0	0	0
6	RBT102137-111 Rev.	RBT102137-111 01-CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-P-416F TYPE 2 CLASS 2		CADMIUM ② CH	1	1	0	0	0
7	STRIP CAD CHARGE Rev.	STRIP CAD CHARGE 01-STRIP [STRIP]		STRIP MIN-CHG	1	1	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.

ENGINEERING CHANGE NOTICE
DART AEROSPACE LTD

Date:	19.06.20	Job No.:	RB18-BELL	ADR Yes/No:	N	ADR Date:		ECN #:	19- 670
Product No.:	DART TOOLING BELL			Created By:	VM	Approved By:	<i>[Signature]</i>		
Product Name:	LIFTING TOOL			Checked By:	<i>[Signature]</i>				

Reason for Change:
FIT ISSUES / MATERIAL ISSUES / FINISH ISSUES / TEST LOAD ISSUES

Documents Released:

RB T102137-111 REV B

IF APPLICABLE: NCR: _____ PAR: _____ CAR: _____ CIR: _____ URF: 19-670

PAPERWORK UPDATE ☐

PARTS MUST COMPLY ☒

PREVIOUS PARTS SATISFACTORY ☐

#	Quality Assurance / Customer Support Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Airbus	N			
3	Notify Leonardo	N			
4	Manufacturing Licensing Agreement Update	N			

#	Engineering Actions	Reqd	Resp	Notes	Complete
5	Required Documents/Drawings/Item ID's Under Review (URF)	N			
6	Update Master Document List (MDL)	N			
7	Update Document Record (DR)	N			
8	Update Product Compatibility Matrix	N			
9	Notify TC / FAA of Change (eg. ICA, 8110-3)	N			
10		N			

#	Document Control Actions	Reqd	Resp	Notes	Complete
11	Move / Update Electronic Files / Design Journal	Y	MD		<i>[Signature] 19.06.20</i>
12	Update Product Specification Files (Bluefiles)	N			
13	Update Approved/Preliminary Dwg PDF Files	Y	MD		<i>[Signature] 19.06.20</i>
14	Update Product Development Summary (STC applications)	N			
15	Update QSI 021 (TC/FAA STC) and/or STC Approval List	N			
16	Create/Update Parts / STC Database	Y	MD		<i>[Signature] 19.06.20</i>
17	Update / Verify Authorized Release Certificate Database	Y	MD		<i>[Signature] 19.06.20</i>
18	Create / Update Change Record Form / Item Card Database	Y	MD		<i>[Signature] 19.06.20</i>
19	Create / Update Packaging Process Plan (PPP)	N			
20	Red Decals required on Packaging Process Plan (PPP)?	N			
21	Update Controlled Supplier Documents (Qpulse) Database	Y	MD	metec	<i>[Signature] 19.06.20</i>
22	Update Grey Project Binder / Electronic Project Folder	N			
23	Update D-Part / M-Drawing / DSI / DEO Master Binders	N			
24	Update "Royalty Paid to" attribute (Parts sold under Dart USA STC's)	N			
25					

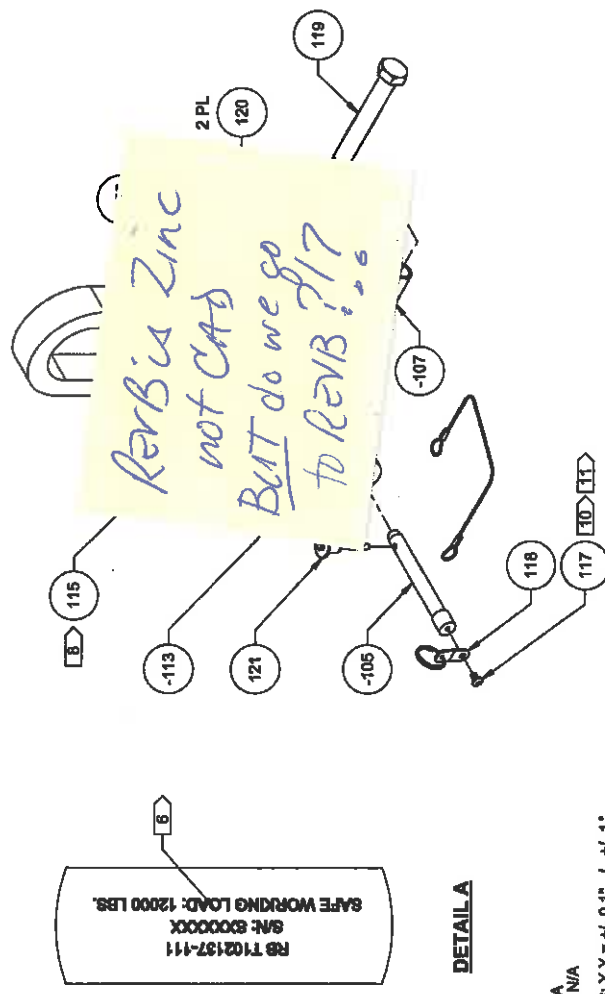
Description / Action:

RELEASE RB T102137-111 REV B DRAWING
PLACE RB T102137-111 REV A IN SUPERCEED FOLDER
CLOSE URF 19-670
ALL STOCK MUST BE SCRAP

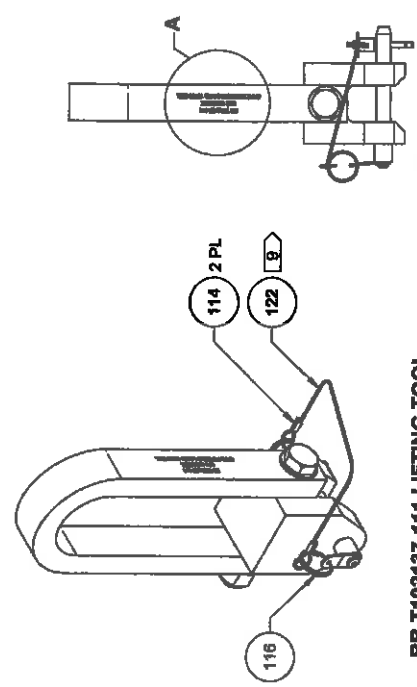
ECN Verified & Complete: _____

Date: _____

ITEM #	QTY	PART #	PART TITLE
-103	1	RB T102137-111-103	STRAP
-105	1	RB T102137-111-105	PIN
-107	1	RB T102137-111-107	SLEEVE
-113	1	RB T102137-111-113	CLEVIS
114	2	McMaster#3396T31 OR EQUIV.	ALUMINUM WIRE ROPE COMPRESSION SLEEVE 1/16" DIA. X 3/8" LG.
115	1	McMaster#90630A165 OR EQUIV.	GRADE 8 STEEL NYLON INSERT LOCKNUT 5/8"-18 X 3/4" HT.
116	1	McMaster#90905A655 OR EQUIV.	316 SS SPLIT RING 15/16" ID. X 1-1/16" OD. X 1/8" THK
117	1	McMaster#91772A826 OR EQUIV.	18-8 SS PHILLIPS PAN HEAD SCREW #10-32 X 5/16" LG.
118	1	McMaster#97940A480 OR EQUIV.	18-8 SS TAB FOR WIRE ROPE LANYARD 1.40" LG. X 1/2" WIDTH. X 1/16" THK.
119	1	AN10-47A	BOLT
120	2	NAS1149F1063P	WASHER
121	1	NAS133S96S10D	QUICK RELEASE PIN
122	1	CARR-LANE#CL-2-C	NYLON COATED STEEL LANYARD 1/16" DIA.



- NOTES:
- 1) MATERIAL: N/A
 - 2) HEAT TREAT: N/A
 - 3) FINISH: N/A
 - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1"
X.XX = +/- 0.01" / +/- 0.5"
X.XXX = +/- 0.005" / +/- 0.1"
X.XXXX = +/- 0.0005" / +/- 0.05"
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) IDENTIFICATION: LASER ENGRAVE, AS SHOWN
 - 7) ASSEMBLE AS SHOWN
 - 8) TIGHTEN NUT UNTIL IT CONTACTS SURFACE. ENSURE 1-4 THREADS IN SAFETY
 - 9) ASSEMBLED LANYARD LENGTH MUST BE 10" +/- 1". LANYARD MUST MOVE FREELY WHEN INSTALLING/REMOVING ITEM 121
 - 10) APPLY RED THREADLOCKER LOCITITE 263/262 ON THREADS OF ITEM 117 THEN ASSEMBLE WITH ITEM -105, AND REMOVE EXCESS
 - 11) INSTALL ITEM 117 HAND TIGHT
 - 12) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG

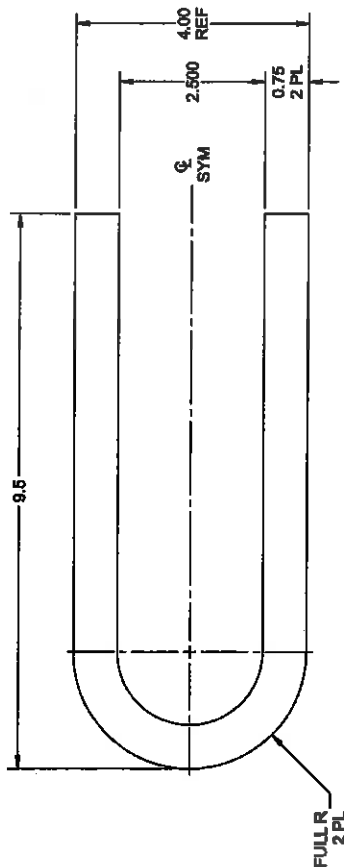
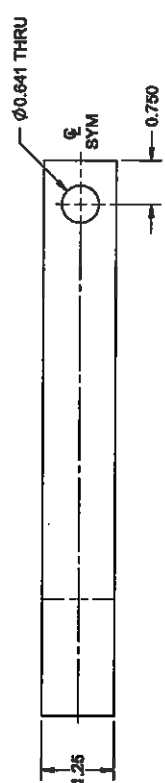
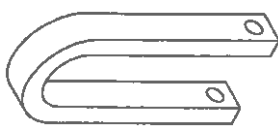


RB T102137-111 LIFTING TOOL

REV. DESCRIPTION		ECN #	BY
DESIGN	KPT		
DRAWN	KPT		
CHECKED	MBB		
MFG. APPR.	WJ		
APPROVED			
DATE 2019-06-20			
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA TOOL PART # RB T102137-111 TITLE LIFTING TOOL SCALE NTS SHEET 1 OF 8 REV B			
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SEE PREVIOUS REVISION FOR MORE INFORMATION
 UPDATED DRAWING TEMPLATE
 ITEM -111 WAS NAS8610-04 IS ITEM 119 AN10-47A
 ITEM -121 WAS NAS10020-10 IS ITEM 120 NAS1149F1063P
 ITEM -115 WAS NAS1261-10 IS ITEM 115 McMaster#90630A165 OR EQUIV.
 ITEM -117 WAS McMaster-CARR #90272A238 IS ITEM 117 McMaster#91772A826 OR EQUIV.
 REMOVED ITEMS -119, -125, AND -129
 -103 MATERIAL WAS 4140M4142 IS 4140. FINISH WAS CAD PLATE YELLOW IS ZINC PLATE YELLOW. DIM WAS 0.5260-0.5245 IS 0.5241. DIM WAS (1.25) IS 1.25. REMOVED ENGRAVING NOTES AND 0.63 DIM.
 -105 MATERIAL WAS 4140M4142 IS 01. FINISH WAS CAD PLATE YELLOW IS ZINC PLATE YELLOW. HEAT TREAT WAS RC 44-45 IS 42-52 RC. DIM WAS 0.194 IS 0.0.196. DIM WAS 10-24 UNC V. 50 IS 10-32 UNF V. 0.31. REMOVED .83 DIM. ADDED 4.00 DIM. ADDED CYLINDRICITY GOVT TOLERANCE. ADDED R0.006 MAX DIM
 -107 MATERIAL WAS 4140M4142 IS 4140. FINISH WAS CAD PLATE YELLOW IS ZINC PLATE YELLOW. HEAT TREAT WAS RC 32-37 IS 32-38 RC. DIM WAS 0.627-0.600-0.02 IS 0.6241. DIM WAS 2.500-0.000-0.010 IS 2.493-2.489
 -113 MATERIAL WAS 4140M4142 IS 4140. FINISH WAS CAD PLATE YELLOW IS ZINC PLATE YELLOW. DIM WAS 2.38 IS 2.493-2.489. DIM WAS 0.504-0.501 IS 0.510-0.509. REMOVED .25, 0.085 V. 0.75, 2.00, 1.19, .829, AND 1.38 DIMS. REMOVED ENGRAVING NOTE.

1 2 3 4 5 6 7 8

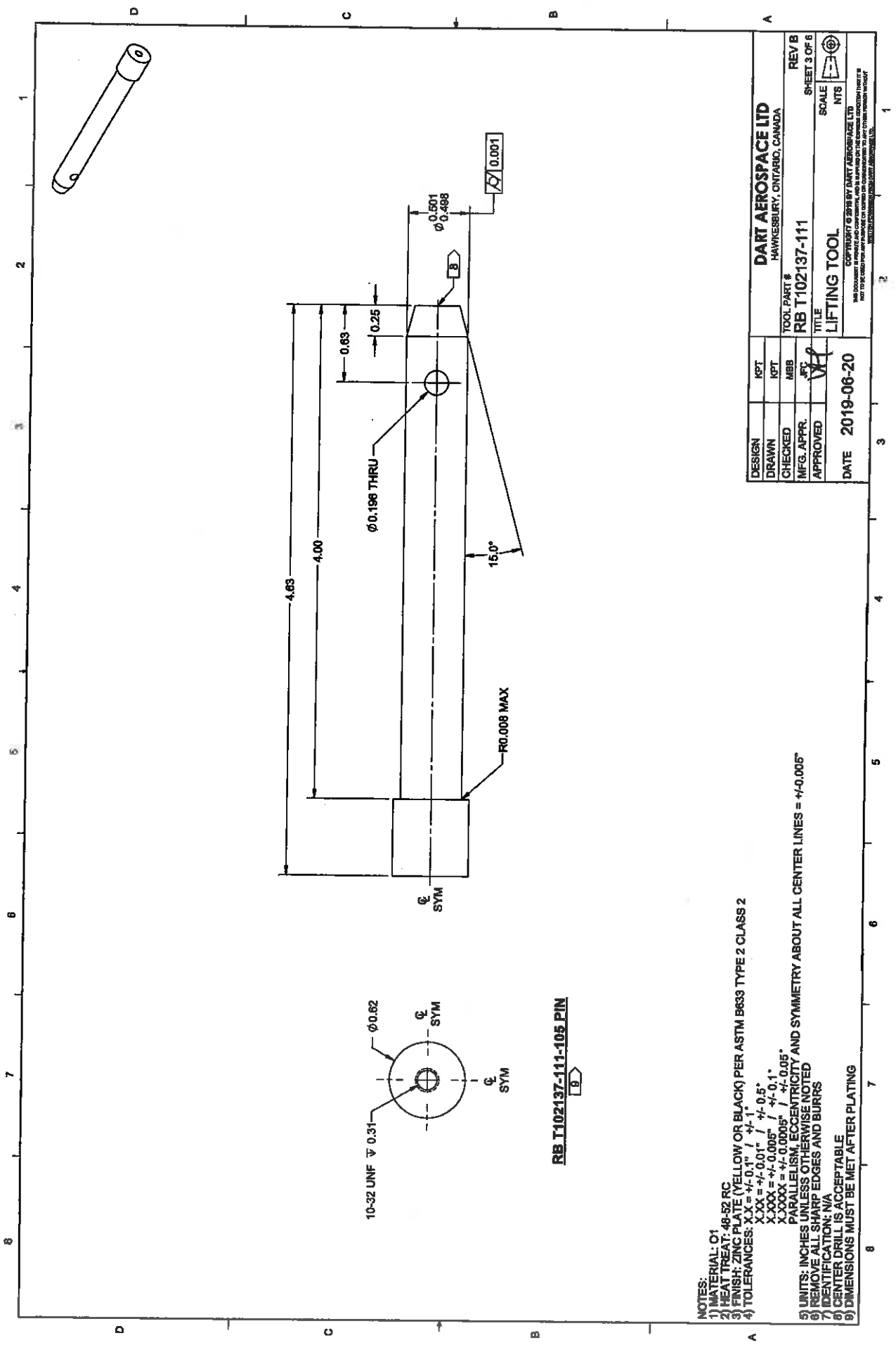


RB T102137-111-103 STRAP

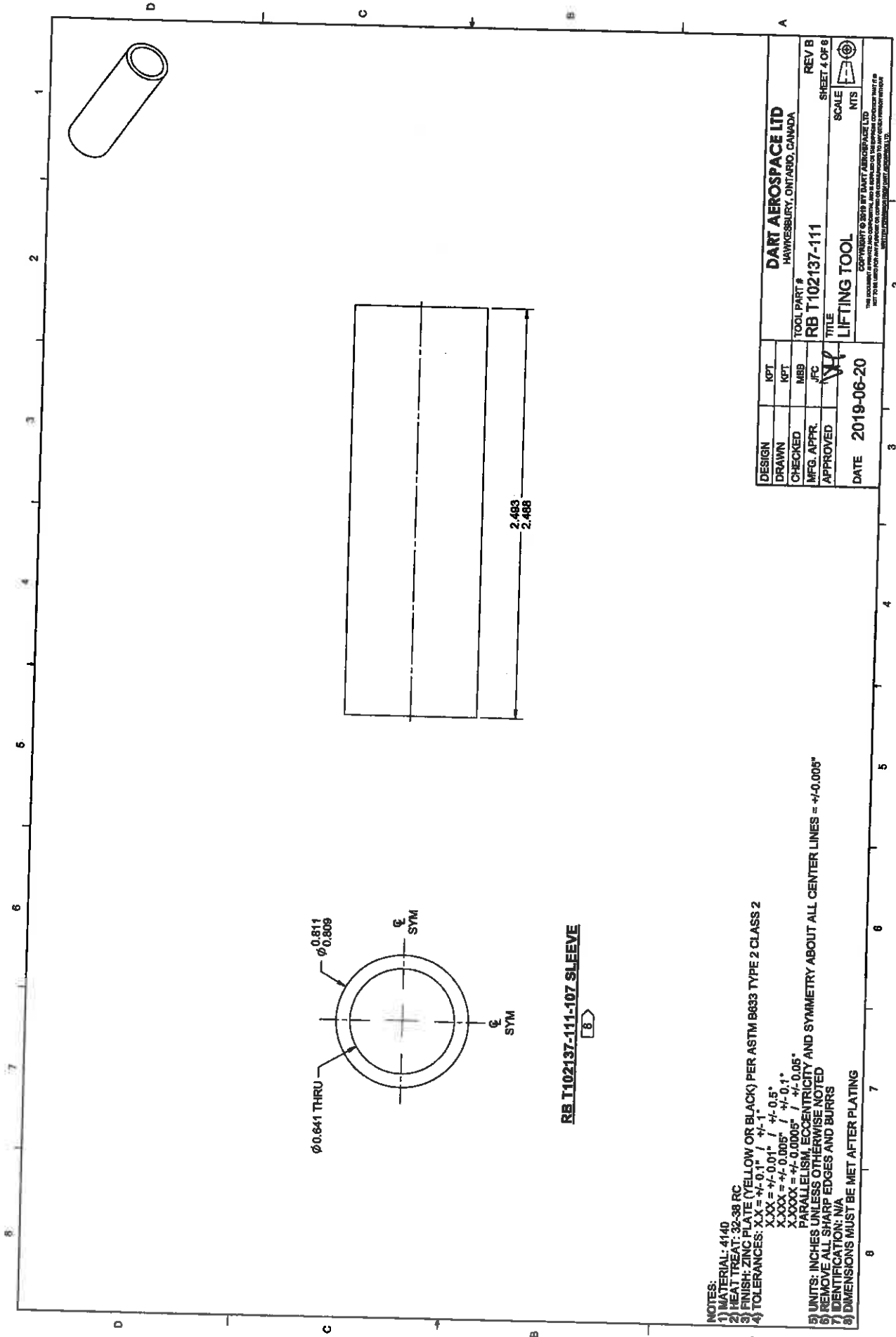
- NOTES:
- 1) MATERIAL: 4140
 - 2) HEAT TREAT: 32-38 RC
 - 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
 - 4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1^\circ$
X.XX = $\pm 0.01"$ / $\pm 0.5^\circ$
X.XXX = $\pm 0.005"$ / $\pm 0.1^\circ$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05^\circ$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) REMOVE ALL SHARP EDGES AND BURRS
 - 7) IDENTIFICATION: N/A
 - 8) DIMENSIONS MUST BE MET AFTER PLATING

DESIGN	RPT	DART AEROSPACE LTD
DRAWN	RPT	HAWKESBURY, ONTARIO, CANADA
CHECKED	MEB	TOOL PART #
MFG. APPR.	JFC	RB T102137-111
APPROVED	WJ	TITLE
DATE	2019-06-20	SCALE
		NTS

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DESIGN	KPT	DATE	2019-06-20
DRAWN	KPT		
CHECKED	MBB		
MFG. APPR.	W		
APPROVED			
DATE 2019-06-20			
DART AEROSPACE LTD			
HAWKESBURY, ONTARIO, CANADA			
TOOL PART #			
RB T102137-111			
TITLE			
LIFTING TOOL			
REV B			
SHEET 3 OF 6			
SCALE			
NTS			
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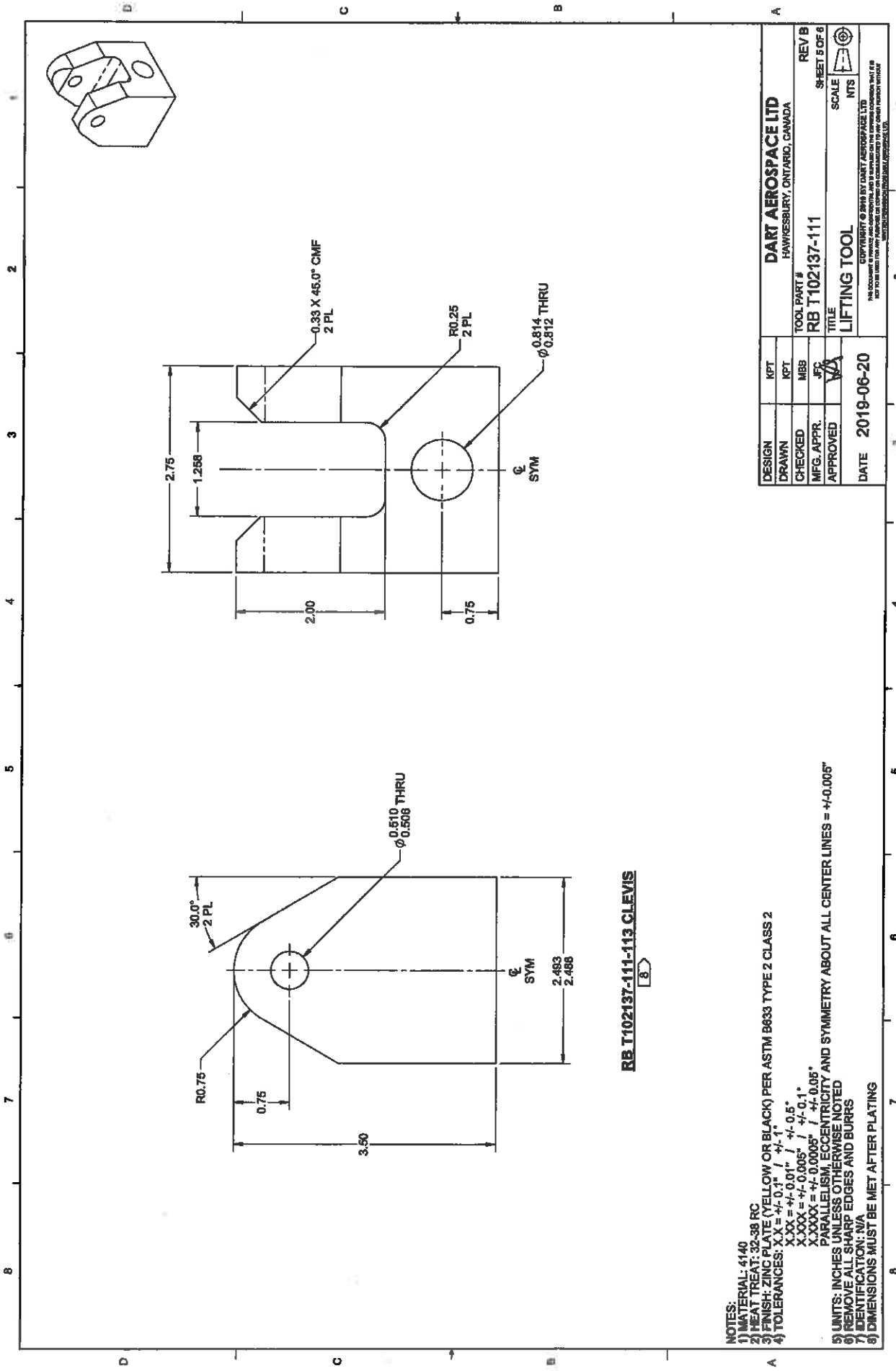


RB T102137-111-107 SLEEVE

- NOTES:
- 1) MATERIAL: 4140
 - 2) HEAT TREAT: 32-38 RC
 - 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
 - 4) TOLERANCES: XX = $\pm 0.1"$ / $\pm 1^\circ$
XXX = $\pm 0.01"$ / $\pm 0.5^\circ$
XXXX = $\pm 0.005"$ / $\pm 0.1^\circ$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) REMOVE ALL SHARP EDGES AND BURRS
 - 7) IDENTIFICATION: N/A
 - 8) DIMENSIONS MUST BE MET AFTER PLATING

DESIGN	KPT	DART AEROSPACE LTD
DRAWN	KPT	HAWKSBURY, ONTARIO, CANADA
CHECKED	MBB	TOOL PART #
MFG. APPR.	JFC	RB T102137-111
APPROVED		TITLE
DATE	2019-06-20	LIFTING TOOL
		SCALE
		NTS
		SHEET 4 OF 8
		REV B

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DESIGN	KPT	
DRAWN	KPT	
CHECKED	MBB	
MFG. APPR.	JFC	
APPROVED	WJA	
DATE	2019-06-20	
DART AEROSPACE LTD		
HAWKESBURY, ONTARIO, CANADA		
TOOL PART #	RB T102137-111	REV B
TITLE	LIFTING TOOL	SHEET 8 OF 8
SCALE	NTS	
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RB T102137-111-113 CLEVIS

- NOTES:
- 1) MATERIAL: 4140
 - 2) HEAT TREAT: 32-38 RC
 - 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
 - 4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1^\circ$
X.XX = $\pm 0.01"$ / $\pm 0.5^\circ$
X.XXX = $\pm 0.005"$ / $\pm 0.1^\circ$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05^\circ$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) REMOVE ALL SHARP EDGES AND BURRS
 - 7) IDENTIFICATION: N/A
 - 8) DIMENSIONS MUST BE MET AFTER PLATING

FIRST ARTICLE WEIGHT TEST

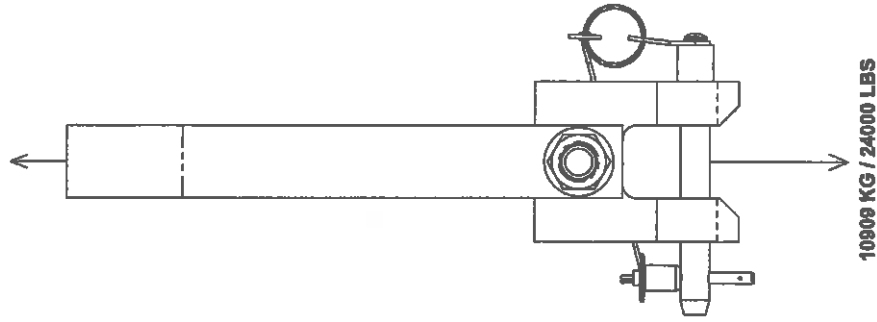
1. AFTER INSPECTION, PLACE LIFTING TOOL IN AN APPROPRIATE FIXTURE AND USE THE QUICK RELEASE PIN TO LOCK THE PIN INTO PLACE. ATTACH THE LIFTING TOOL TO AN APPROPRIATE TEST WEIGHT OF 10809 KG / 24000 LBS.
2. LIFT WEIGHT FOR AT LEAST 5 MINUTES, CONTINUALLY CHECKING FOR CRACKS, DEFLECTION, OR DISTORTION
3. REMOVE WEIGHT AND RE-INSPECT TOOL, CHECKING FOR STRESS CRACKS, BENDING, OR DISTORTIONS.

INSPECTOR: _____

TESTER: _____

SN: _____

DATE: _____



DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESSBURY, ONTARIO, CANADA	
CHECKED	MBB	TOOL PART #	REV B
MFG. APPR.	JFC	RB T102137-111	SHEET 6 OF 8
APPROVED	VF	TITLE	SCALE
DATE 2019-06-20		LIFTING TOOL	NTS
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